



United States Patent & Trademark Office; U.S. DEPARTMENT OF COMMERCE

PTO/SB/33 (07-05)

PRELIMINARY APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional) 47092.00047
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on _____ Signature _____ Typed or printed Name _____		Application Number: 10/668,299
		Filed: September 24, 2003
		First Named Inventor: Otto-Aleksanteri LEHTINEN, et al.
		Art Unit: 2687
		Examiner: Casca, Fred A.

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Commissioner for Patents
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Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a Notice of Appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

- ☐ Applicant/Inventor.
☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under
37 CFR 3.73(b) is enclosed

☒ Attorney or agent of record.
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NOTE: Signatures of all of the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☐ *Total of _____ forms are submitted.



PRE-APPEAL BRIEF REQUEST FOR REVIEW

May 24, 2006

In re the Application of:

Otto-Aleksanteri LEHTINEN, et al.

Art Unit: 2687

Application No.: 10/668,299

Examiner: Casca, Fred A.

Filed: September 24, 2003

Attorney Dkt. No.: 47092.00047

For: PARAMETER SELECTION OPTIMIZATION FOR HANDOVER

This is a Pre-Appeal Brief Request for Review from the final rejection set forth in an office action dated February 24, 2006, ("the office action") finally rejecting claims 1-4, 6-12, 14, 15, 17-21, and 23-27, and objecting to claims 5, 13, 16, and 22.

The cited references fail to disclose or suggest all of the limitations of any of the pending claims. Thus, the Final Office Action did not establish prima facie obviousness in rejecting the pending claims, which constitutes clear error.

The claim rejections are set forth in page 2 of the Office Action. The Office Action rejected claims 1, 4, 6, 7, 9, 14, 15, and 26 under 35 U.S.C. 103(a) as being obvious over US Patent No 6,993,332 to Pedersen et al., (Pedersen) in view of US Patent No. 6,570,862 to Virtanen (Virtanen). The Office Action took the position that Pedersen disclosed all of the features recited in the above claims with the exception of measuring a delay of a handover procedure and setting the handover parameter based on the result of said measured delay, which the Office Action alleges is disclosed by Virtanen. Applicants respectfully submit that the cited references taken individually or in combination, fail to disclose or suggest all of the features recited in any of the pending claims.

Claim 1, from which claims 2-13 depend, recites a method of selecting a handover parameter in a cellular network. The method includes selecting the handover parameter from a plurality of handover parameters. The method further includes measuring a delay of a handover procedure. Further, the method includes setting said selected handover parameter based on the result of said measured delay.

Claim 14, from which claims 15-23 depend, recites a network device for selecting a

handover parameter in a cellular network. The device includes selecting means for selecting the handover parameter from a plurality of handover parameters. The device further includes measuring means for measuring a delay of a handover procedure. Further, the method includes setting means for setting said selected handover parameter in response to said measured delay.

Claim 26, from which claim 27 depends, recites a network device for selecting a handover parameter in a cellular network. The network device includes a selector unit for selecting the handover parameter from a plurality of handover parameters. The device further includes a measuring unit for measuring a delay of a handover procedure. Further, the device includes a selection unit for setting said selected handover parameter in response to said measured delay.

The present invention selects a parameter from a plurality of parameters and adjusts the selected parameter based on measured handover delay. Applicants respectfully submit that the current pending claims recite features that are neither disclosed nor suggested in any of the cited references.

Pedersen is directed to a specific type of handover, namely soft handover (SHO). Pedersen proposes a new generic handover (HO) strategy, which is referred to as “user specific handover settings”. The basic idea is to use different HO algorithms/parameters for different user classes in the network. Doing this, makes it possible to optimize the network further, and thereby obtain a potential capacity gain. This makes it possible for the operator to make trade-offs between link quality (transparent HO) and network capacity (reduced SHO overhead). This prior art is targeted especially to WCDMA/HSDPA systems, while the present application is targeted to a TDD system, in which there exists no such thing as soft handover.

Virtanen is directed to a method for selecting a way to perform handover, wherein selection is performed based on received pilot signals. In particular, as discussed in Virtanen at col. 3, lines 65 to 67, an estimated time distribution of handovers is used as a parameter for determining a handover technique.

Applicants respectfully submit the Office Action did not establish prima facie obviousness in rejecting any of the above claims. Specifically, Applicants submit that the cited references taken individually or in combination, fail to disclose or suggest all of the features recited in any of the pending claims. This failure constitutes clear error in the Office Action.

In order to establish prima facie obviousness there must be some suggestion or motivation,

either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Further, the prior art references must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on Applicants' disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art. In re Rouffet, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998).

In the present case, the cited references fail to disclose or suggest at least the features of measuring a delay of a handover procedure and setting the handover parameter based on the result of said measurement step, as recited in claim 1, and similarly recited in claims 14 and 26. Specifically, Virtanen fails to cure the admitted deficiencies of Pedersen for the reasons set forth below.

Applicants submit that Virtanen does not disclose or suggest setting a handover parameter based on the result of the measuring step, as recited in the pending claims. Instead, Virtanen merely discloses selecting between the types of handover procedures, hard handover or soft handover, and not selecting parameters, as recited in the pending claims. The type of handover cannot be reasonably be interpreted as a handover parameter by one of ordinary skill in the art. Moreover, the selection process described in Virtanen clearly differs from the claimed selection of a handover parameter, which is performed based on a measured delay. As discussed above, the selection of soft versus hard handover, is based on received pilot signals and not measured delay as recited in the pending claims. Thus, Virtanen fails to cure the admitted deficiencies of Pedersen and this failure constitutes clear error.

Moreover, Applicants respectfully submit that there is no motivation to combine the teachings of Pedersen and Virtanen, as a basis for rejecting any of the present claims. The Office Action's attempt to combine the teachings of the Pedersen and Virtanen is the result of impermissible hindsight and therefore, constitutes clear error in the Office Action.

Pedersen is directed to a specific type of handover, namely soft handover (SHO), wherein a new generic handover (HO) strategy, which is referred to as "user specific handover settings". The basic idea is to use different HO algorithms/parameters for different user classes in the

network. Thus, a tradeoff is made that allows operator to make trade-offs between link quality (transparent HO) and network capacity (reduced SHO overhead). Pedersen is targeted especially to WCDMA/HSDPA systems, while the present application is targeted to a TDD system, in which there exists no such thing as soft handover. In contrast, Virtanen is related to wireless local loop (WLL) systems.

According to the 3GPP specification 25.992 0.5.0, soft handover is a type of handover in which the mobile station starts communication with a new base station on a same carrier frequency, or sector of the same site (softer handover), performing utmost a change of code. For this reason, soft handover allows easily the provision of macrodiversity transmission. For this intrinsic characteristic, the terminology tends to identify soft handover with macrodiversity even if they are two different concepts. Because of this, soft handover is used in CDMA systems where the same frequency is assigned to adjacent cells.

Based at least on the above, Applicants respectfully submit that there is no motivation in either of Pedersen, Virtanen, or in the knowledge of one skilled in the art, to modify Pedersen with Virtanen in the manner alleged in the Office Action. Therefore, the motivation to do so stems only from the Applicants' disclosure, which is impermissible hindsight. Thus, the combination of Pedersen and Virtanen is improper and constitutes clear error in the Office Action.

Based at least on the above, Applicants respectfully submit that the Office Action failed to establish prima facie obviousness in rejecting any of the pending claims. This failure constitutes clear error in the Office Action.

The Office Action issued the following rejections and objections:

Claims 2, 3, 17-18 and 27 are rejected under 35 U.S.C. 103(a) as being obvious over Pedersen and Virtanen, in further view of US Publication No. 2003/0157934 to Liang (Liang);

Claims 10 and 19 are rejected under 35 U.S.C. 103(a) over Pedersen and Virtanen, in further view of US Publication No. 2002/0018010 A1 to Le (Le);

Claims 12 and 20 are rejected under 35 U.S.C. 103(a) as being obvious over Pedersen and Virtanen, in further view of US Publication No. 2004/0202119 to Edge (Edge);

Claim 11 is rejected under 35 U.S.C. 103(a) over Pedersen, Virtanen and Le, in further view of US Patent No. 6,735,436 to McCauley McCauley;

Claim 21 is rejected under 35 U.S.C. 103(a) over Pedersen, Virtanen and Edge, in further

view of US Publication No. 2004/0219919 to Whinnet et al. (Whinnet);

Claim 23 is rejected under 35 U.S.C. 103(a) over Pedersen and Virtanen and Le, in further view of US Publication No. 2002/0107031 to Syrjarinne et al. (Syrjarinne); and

Claims 24 and 25 are rejected under 35 U.S.C. 103(a) over Pedersen and Virtanen, in further view of US Publication No. 2004/0053606 to Artamo et al. (Artamo).

The Office Action objected to claims 5, 13, 16 and 22 are being dependent from a rejected base claim.

Applicants respectfully submit that because claims 2-13, 15-25, and 27 depend from claims 1, 14, and 26, the rejections and objections of these dependent claims, constitute clear error because none of the additional, cited references cure the deficiencies of Pedersen and Virtanen discussed above regarding claims 1, 14 and 26. Thus, *prima facie* obviousness is not established in the Office Action which constitutes clear error.

Conclusion

For all of the above noted reasons, it is strongly submitted that certain clear differences exist between the present invention and the prior art relied upon by the Examiner and that a *prima facie* case of obviousness has clearly not been established. This final rejection being in clear error, therefore, it is respectfully requested that the Examiner's decision be reversed in this case regarding the rejection of claims 1-4, 6-12, 14, 15, 17-21, and 23-27, and objecting to claims 5, 13, 16, and 22, and that this application be passed to issue.

Respectfully submitted,



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